In the Claims:

Please amend the claims as follows:

Please substitute pending claims 1, 3 and 5-10 with the following claims 1, 3 and 5-10:

- 1 (Once amended) A method for identifying a compound that modulates sister chromatid separation by inhibiting the proteolytic activity of separase, characterized in that an active separase in the form of
 - a) one or more separase fragments, optionally upon activation in the presence of securin, or
 - b) the full-length separase upon activation in the presence of securin, is incubated in the presence of a separase substrate, with a test compound and that modulating effect of the test compound on the proteolytic activity of the active separase is determined.
- 1. (Once amended) The method of claim 1, wherein the active separase is activated in a mitotic cell extract in the presence of securin.
- 5. (Once amended) The method of claim 1, wherein the separase substrate is <u>a</u> peptide comprising a fluorogenic group, which upon processing of the polypeptide results in a change in fluorescence and that change in fluorescence is correlated with the separase activity.
- (Once amended) The method of claim 5, wherein the separase substrate is a peptide selected from peptides containing the sequence DREIMR (SEQ ID NO:9), SFEILR (SEQ ID NO:11) or EWELLR (SEQ ID NO:12).

PETERS *et al.* Appl. No. 10/051,311

- 7. (Once amended) A peptide selected from peptides containing the sequence DREIMR (SEQ ID NO:9), SFEILR (SEQ ID NO:11) or EWELLR (SEQ ID NO:12) or a derivative thereof.
- 8. (Once amended) The peptide of claim 7 or a derivative thereof for the treatment of cancer.
- 9. (Once amended) A pharmaceutical composition comprising the peptide of claim 7.
- 10. (Once amended) An inhibitor of separate identified by the method of claim 1 for human therapy.